Oracle® Communications Session Border Controller & Session Router
Release Notes

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Oracle Communications Session Border Controller & Session Router Release Notes, Release S-CZ8.0

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Contents

About this Guide

The Oracle Communications Session Border Controller (OCSBC) and Oracle Communications Session Router (OCSR) Release Notes document provides the following information when applicable:

- An introduction to the full release
- An overview of the new features available
- An overview of the interface enhancements
- A summary of known issues, caveats, and behavioral changes

If any of these sections does not appear in the document, then there were no changes to summarize in that category for that specific release.

Related Documentation

The following table lists the members that comprise the documentation set for this release:

Document Name	Document Description
Acme Packet 4600 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 4600.
Acme Packet 6100 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6100.
Acme Packet 6300 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6300.
Acme Packet 6350 Hardware Installation Guide	Contains information about the components and installation of the Acme Packet 6350.
Release Notes	Contains information about the current documentation set release, including new features and management changes.
ACLI Configuration Guide	Contains information about the administration and software configuration of the Service Provider Oracle Communications Session Border Controller.
ACLI Reference Guide	Contains explanations of how to use the ACLI, as an alphabetical listings and descriptions of all ACLI commands and configuration parameters.
Maintenance and Troubleshooting Guide	Contains information about Oracle Communications Session Border Controller logs, performance announcements, system management, inventory management, upgrades, working with configurations, and managing backups and archives.

Document Name	Document Description
MIB Reference Guide	Contains information about Management Information Base (MIBs), Oracle Communication's enterprise MIBs, general trap information, including specific details about standard traps and enterprise traps, Simple Network Management Protocol (SNMP) GET query information (including standard and enterprise SNMP GET query names, object identifier names and numbers, and descriptions), examples of scalar and table objects.
Accounting Guide	Contains information about the Oracle Communications Session Border Controller's accounting support, including details about RADIUS and Diameter accounting.
HDR Resource Guide	Contains information about the Oracle Communications Session Border Controller's Historical Data Recording (HDR) feature. This guide includes HDR configuration and system-wide statistical information.
Administrative Security Essentials	Contains information about the Oracle Communications Session Border Controller's support for its Administrative Security license.
Security Guide	Contains information about security considerations and best practices from a network and application security perspective for the Oracle Communications Session Border Controller family of products.
Installation and Platform Preparation Guide	Contains information about upgrading system images and any pre-boot system provisioning.
Call Traffic Monitoring Guide	Contains information about traffic monitoring and packet traces as collected on the system. This guide also includes WebGUI configuration used for the SIP Monitor and Trace application.
Header Manipulation Rule Guide	Contains information about configuring and using Header Manipulation Rules to manage service traffic.

Revision History

This section contains a revision history for this document.

Date	Description
September 2017	• Initial Release • Identifies GA release information
November 2017	• Adds qualified VNF interface firmware revisions, based on DPDK version • Adds the following Caveat – Interface Utilization Support
November 2017	• Updated for release SCZ800p1
December 2017	• Clarifies PRACK IWF defect • Changes defect table to includes all defect ID numbers
December 2017	• Adds qualified Netra platform versioning.
May 2018	• Adds FAX Transcoding as VNF limitation • Updates "Incremental QoS Updates (Provided to OCOM)" to remove the Acme Packet 3900 as a supported platform and include that this feature is not supported on VNF.

Date	Description
May 2018	• Adds the High Availability issue and workaround to Caveats.
June 2018	• Adds valid upgrade path from SCZ740 to SCZ800p1. • Adds Pooled Transcoding Caveats • Adds Pooled Transcoding Known Issues.
August 2018	• Updates the Pooled Transcoding list of supported hardware/software combinations. • Moves QoS for transcoded calls caveat to "Older Caveats Fixed in This Release".
May 2019	• Updates the Known Issues table.
June 2019	• Adds OCOM incompatibility with IPv6 to known issues.
July 2019	• Adds TSM SDK section to "Coproduct Support."
October 2019	• Adds an MSRP Known Issue to "Known Issues".
November 2019	• Adds trace tool limitations to "Trace Tools" caveat.

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Introduction to S-CZ8.0.0

The Oracle Communications Session Border Controller and Session Router S-CZ8.0.0 Release Notes provide the following information about this product:

- Supported platforms and hardware requirements
- An overview of the new features available in this release
- An overview of previously-available features that are new to the GA of this major release
- A summary of changes the interfaces including the ACLI, MIB Support, and accounting interfaces.
- A summary of known issues, caveats, and behavioral changes

Platform Support

The following platforms are supported by the S-CZ8.0.0 version of the OCSBC, based on the Support per Release table following this section.

Acme Packet Platforms

- Acme Packet 4600
- Acme Packet 6100
- Acme Packet 6300
- Acme Packet 6350

The following platforms are supported by the S-CZ8.0.0 version of the OCSR, based on the Support per Release table following this section:

- Acme Packet 4600
- Acme Packet 6100
- Acme Packet 6300
- Netra X5-2
    - Note - Qualified via Platform Software Release 1.0.0 (ILOM 3.2.4.32, BIOS 32.00.01.01)
    - Caveat - Fortville Firmware - v4.53 (To resolve 10g Base-T link flap issue with Extreme X670V)

Qualified Virtual Machine Management Platforms

Oracle qualified the following components for deploying version S-CZ8.0.0 as a Virtual Network Function.

- XEN 4.4: Specifically using Oracle Virtual Machine (OVM) 3.4.2
- KVM: Using version embedded in Oracle Linux 7 with RHCK.
  Note the use of the following host component versions you must install:

    – RHCK: 3.10.0-514

    – DPDK: dpdk017.05.2

    – QEMU: qemu-2.9.0

    – OVS: openvswitch-2.8.0

    – i40e: Firmware-version : 5.04, with driver 2.0.19

- ESXi : Using VMware vSphere Hypervisor 6.0 u2

Qualified hardware platforms for hypervisors:

- Netra X5-2

- Oracle Server X5-2

Qualified interface chipsets

- Intel x540/82599

- Intel i350

- Intel X710 / XL710

Firmware version information from dpdk.org is also presented, based on the DPDK version used in this release.

Intel x540/82599

- Intel(R) Ethernet Controller X540-AT2

- Firmware version: 0x80000389

- Device id (pf): 8086:1528

- Driver version: 3.23.2 (ixgbe)

- Intel(R) 82599ES 10 Gigabit Ethernet Controller

- Firmware version: 0x61bf0001

- Device id (pf/vf): 8086:10fb / 8086:10ed

- Driver version: 4.0.1-k (ixgbe)

Intel X710 / XL710

- Intel(R) Ethernet Converged Network Adapter X710-DA4 (4x10G)

- Firmware version: 5.05 (Note OL7 exception above)

- Device id (pf/vf): 8086:1572 / 8086:154c

- Driver version: 1.5.23 (i40e) (Note OL7 exception above)

- Intel(R) Ethernet Converged Network Adapter X710-DA2 (2x10G)

- Firmware version: 5.05 (Note OL7 exception above)

- Device id (pf/vf): 8086:1572 / 8086:154c

- Driver version: 1.5.23 (i40e) (Note OL7 exception above)

Qualified interface input-output modes

- Para-virtualized (VIF on XEN)

- SR-IOV

- PCI Passthrough

Qualified Updates for KVM Deployments over PCI Passthrough

Oracle recommends the user obtain and install the following for KVM deployments using PCI Passthrough interfaces.

- qemu-kvm.x86_64 10:1.5.3-141.el7_4.2

- qemu-img.x86_64 10:1.5.3-141.el7_4.2

- qemu-kvm-common.x86_64 10:1.5.3-141.el7_4.2

- ipxe-roms-qemu.noarch 0:20170123-1.git4e85b27.el7_4.1

Platform Support per Initial Release

Support for S-CZ8.0.0 across current platforms will be phased in according to the following table, which will be updated periodically.

Platform	Initial Release
Acme Packet 4600	S-CZ8.0.0p1
Acme Packet 6100	S-CZ8.0.0p1
Acme Packet 6300	S-CZ8.0.0p1
Acme Packet 6350 (OCSBC Only)	S-CZ8.0.0 GA
KVM	S-CZ8.0.0p1
OVM	S-CZ8.0.0p1
VMWare	S-CZ8.0.0p1
Netra X5-2 (OCSR Only)	S-CZ8.0.0p1

Virtual Machine Platform Resources

A Virtual Network Function (VNF) requires the CPU core, memory, disk size, and network interfaces specified for operation. The OCSBC and OCSR use the Intel Data Plane Development Kit (DPDK) for datapath design, which imposes specific VNF resource requirements for CPU cores. Deployment details, such as the use of distributed DoS protection, dictate resource utilization beyond the defaults.

You configure CPU core utilization from the ACLI based on your deployment. You can also define memory and hard disk utilization based on your deployment. You must configure the hypervisor with the appropriate settings prior to startup, if you need settings other than the machine defaults set by the machine template (OVA).

Default VM Resources

VM resource configuration defaults to the following:

- 4 CPU Cores

- 8 GB RAM

- 40 GB hard disk (pre-formatted)

- 8 interfaces as follows:

  - 1 for management (wancom0)

– 2 for HA (wancom1 and 2)

– 1 spare

– 4 for media

Interface Host Mode

The OCSBC S-CZ8.0.0 and OCSR VNFs support interface architectures using Hardware Virtualization Mode - Paravirtualized (HVM-PV):

- ESXi - No manual configuration required.

- KVM - HVM mode is enabled by default. Specifying PV as the interface type results in HVM plus PV.

- XEN - The user must configure HVM+PV mode.

CPU Core Resources

The OCSBC S-CZ8.0.0 and OCSR VNFs require an Intel Core2 processor or higher, or a fully emulated equivalent including 64-bit SSSE3 and TSC support.

If the hypervisor uses CPU emulation (qemu etc), Oracle recommends that you set the deployment to pass the full set of host CPU features to the VM.

Virtual Network Function (VNF) Limitations

Oracle Communications Session Border Controller (OCSBC) functions not available in VNF deployments of this release include:

- Native transcoding for codecs other than G.711 and G.729.
  Workaround: For all other codecs, configure your environment and system for pooled transcoding.

- Inband DTMF detection

- DTMF generation

- RTCP generation for G.711 or G.729

- RTCP detection

- MSRP functionality

- TSCF functionality

- LI-PCOM

- H.323 signaling or H.323-SIP inter-working

- Remote Packet Trace

- ARIA Ciphers

- IPSec functionality not available in VNF deployments of this release:

  – IKEv1

  – Authentication header (AH)

  – The AES-XCBC authentication algorithm

  – Dynamic reconfiguration of security-associations

  – Hitless HA failover of IPSec connections.

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Image Files and Boot Files

For Engineered Hardware

Use the following files for new installations and upgrades on Acme Packet platforms.

- Image file: `nnSCZ800.bz.`
- Bootloader file: `nnSCZ800.boot.`

For Virtual Machines

The OCSBC S-CZ8.0.0p1 version includes distributions suited for deployment over hypervisors. Download packages contain virtual machine templates for a range of virtual architectures. Use the following distributions to deploy the OCSBC as a virtual machine:

- `nnSCZ800p1-img-vm_ovm.ova`—Open Virtualization Archive (.ova) distribution of the OCSBC VNF for Oracle (XEN) virtual machines.
- `nnSCZ800p1-img-vm_kvm.tgz`—Compressed image file including OCSBC VNF for KVM virtual machines.
- `nnSCZ800p1-img-vm_vmware.ova`—Open Virtualization Archive (.ova) distribution of the OCSBC VNF for ESXi virtual machines.

The OVM, KVM, and VMware packages include:

- Product software—Bootable image of the product allowing startup and operation as a virtual machine. This disk image is in either the vmdk or qcow2 format.
- `usbc.ovf`—XML descriptor information containing metadata for the overall package, including identification, and default virtual machine resource requirements. The .ovf file format is specific to the supported hypervisor.
- `legal.txt`—Licensing information, including the Oracle End-User license agreement (EULA) terms covering the use of this software, and third-party license notifications.

Bootloader Requirements

The Acme Packet 4600, 6100, 6300, and 6350 platforms require a Stage 3 bootloader that accompanies the OCSBC image file, as distributed. It should be installed according to the instructions found in the Installation Guide.

Upgrade Information

This section provides key information about upgrading to this software version.

Supported Upgrade Paths

Note that the S-CZ8.0.0 GA release is supported on the Acme Packet 6350 platform only. This platform is new, with the first supported release being S-CZ8.0.0 GA. This means there are no upgrade paths valid for S-CZ8.0.0 GA.

The following upgrade paths are supported to S-CZ800p1:

- S-CZ7.3.0m2 -> S-CZ8.0.0p1

- S-CZ7.3.0m2p1 -> S-CZ8.0.0p1

- S-CZ7.3.9p4 -> S-CZ8.0.0p1

- S-CZ7.4.0 -> S-CZ8.0.0p1

- S-CZ8.0.0 -> S-CZ8.0.0p1

When upgrading to this release from a release older than the previous release, read all intermediate Release Notes documents for notification of incremental changes.

Upgrading Systems Running IMS-AKA DDoS

When upgrading an OCSBC running IMS-AKA DDoS and HA from S-CZ7.3.0M1 and later to S-CZ8.0.0, the user must upgrade and simultaneously reboot both the active and secondary nodes. This properly clears ACLs built by the earlier version, allowing the system to instantiate new, operational ACLs.

IMS-AKA DDoS is not supported in releases prior to S-Cz7.3.0M1. Upgrades from those versions to S-Cz8.0.0, therefore, do not require this simultaneous reboot.

Self-Provisioned Entitlements and License Keys

This release uses the following self-provisioned entitlements and license keys to enable features.

Self-provisioned Features

These licenses are enabled with the **setup entitlements** command.

Feature	Type
SIP Sessions	number of sessions
Accounting	boolean
IPv4 - IPv6 Interworking	boolean
IWF (SIP-H323)	boolean
Load Balancing	boolean
Policy Server	boolean
Quality of Service	boolean
Routing	boolean
SIPREC Session Recording	boolean
IMS-AKA Endpoints	number of endpoints
IPSec Trunking Sessions	number of sessions
MSRP B2BUA Sessions	number of sessions
SRTP Sessions	number of sessions
TSCF Tunnels	number of tunnels
Admin Security (P1 and forward)	boolean

License-key enabled Features

These features are enabled by installing a license key at the **system** > **license** configuration element. Request license keys at the License Codes website at http://www.oracle.com/us/support/licensecodes/acme-packet/index.html.

Feature	Type
Transcoded AMR-NB	number of sessions
Transcoded AMR-WB	number of sessions
Transcoded EVRC	number of sessions
Transcoded EVRC-B	number of sessions
Transcoded Opus	number of sessions
Transcoded SILK	number of sessions
Lawful Intercept	boolean

System Capacities

System capacities vary across the full range of platforms which support the Oracle Communications Session Border Controller. To query the current system capacities for the platform you are using, execute the **show platform limit** command.

Transcoding Support

The Oracle Communications Session Border Controller supports different sets of codecs and transcoding functions depending upon the platform on which it runs. Virtual platforms support one set of codecs. The Acme Packet 4600 and Acme Packet 6300/6350 add a second set of codecs with transcoding hardware. VNF platforms support transcoding when you configure one or more transcoding cores.

The pooled transcoding feature on the VNF uses an external transcoding Session Border Controller (SBC), as defined in "Co-Product Support," for supported Oracle Communications SBCs for the Transcoding-SBC (T-SBC) role.

S.CZ8.0.0 Supported Codecs Per Platform

Platform	Supported Codecs
Virtual Platforms (with transcoding core)	• PCMU • PCMA • G729 • G729A

Platform	Supported Codecs
Acme Packet Engineered Platforms with transcoding modules add:	• EVRC0 • EVRC • EVRC1 • EVRCB0 • EVRCB • EVRCB1 • T.38OFD • Opus • SILK • G711FB • G726 • G726-16 • G726-24 • G726-32 • G726-40 • G723 • G722 • GSM • AMR • AMR-WB • iLBC • T.38 • CN • Telephone-event

Oracle Communications Session Router Platform Requirements

The Oracle Communications Session Router, release S-CZ8.0.0 supports the following platforms:

• Acme Packet 4600

• Acme Packet 6100

• Acme Packet 6300

• Netra Server X5-2

• Virtual Platforms

Minimum hardware requirements for Netra Server X5-2 are:

Processor	Memory	Hard Drive
2 x Intel Xeon E5-2699 v3 CPUs	256 GB (16 x 16 GB DIMM) DDR4-2133	1.2 TB (2 x 600GB HDD)

Coproduct Support

The products/features listed in this section run in concert with the Oracle Communications Session Border Controller for their respective solutions.

Oracle Communications Subscriber-Aware Load Balancer

With an Oracle Communications Subscriber-Aware Load Balancer running S-CZ7.3.10 software, SBC cluster members may run S-CZ8.0.0 on the following hardware:

- Acme Packet 4600

- Acme Packet 6100

- Acme Packet 6300

Please refer to the *Oracle Communications Subscriber-Aware Load Balancer Essentials Guide* for additional limitations.

Oracle Communications TSM SDK

This release can interoperate with the following versions of the TSM SDK:

- 1.5

- 1.6

Pooled Transcoding

The pooled transcoding feature enables a non-transcoding Oracle Communications Session Border Controller to access the resources of a transcoding Oracle Communications Session Border Controller (T-SBC) to perform transcoding on its behalf. When the A-SBC/P-CSCF function is based on S-CZ8.0.0 software, the following hardware/software combinations may be used as a T-SBC in a pooled transcoding scenario:

- Acme Packet 4600, with transcoding hardware (TM2): S-CZ7.4.0+, S-CZ8.0.0+

- Acme Packet 6300, with transcoding hardware (TM2): S-CZ7.4.0+, S-CZ8.0.0+

- Acme Packet 6350, with transcoding hardware (TM2): S-CZ8.0.0+

Oracle Communications Session Element Manager

Oracle Communications Session Element Manager (SEM) versions 8.0 and later, with the SD-plugin 1.0, supports this GA release of the Oracle Communications Session Border Controller . Partial support is available in earlier 7.5 versions of SEM, if desired. Contact your Sales representative for further support and requirement details.

Deprecated Features

The features listed in this section are removed from the Oracle Communications Session Border Controller beginning with the version stated.

Feature	Description	First Deprecated
MSRP Stitching	This feature, which supported peer-to-peer TCP connections for peers behind NATs, enabling Message Session Relay Protocol (MSRP) clients to communicate with one another, is not supported. Note that your can still accomplish this function using MSRP B2BUA.	SCZ8.0.0
Telnet	Telnet is not supported. Use SSH for network access to OCSBC management. References to Telnet are present in the S-CZ8.0.0 documentation set because those terms are still used in the ACLI. For example, the **telnet-timeout** parameter persists in the guide because it persists in **system-config**. In the absence of Telnet support, the **telnet-timeout** parameter now sets the SSH timeout.	SCZ8.0.0
ACLI "management" Command	The **management** command is not supported, and removed from the ACLI.	SCZ8.0.0
The dynamic-trusted-drop-threshold Feature	The **media-manager-config**'s **dynamic-trusted-drop-threshold** feature is not supported, and the parameter is removed from the ACLI.	SCZ8.0.0
Acme Packet 3820 and 4500	This version of software does not support the Acme Packet 3820 and the Acme Packet 4500 platforms.	SCZ8.0.0
The phy-link redundancy Feature	The **phy-interface**'s **phy-link redundancy** feature, which was available on the Acme Packet 3820 and 4500 platforms, is not supported. The parameter is also removed from the ACLI.	SCZ8.0.0
The minimum-reserved-bandwidth Feature	The **access-control**'s **minimum-reserved-bandwidth** feature, which was available on the Acme Packet 3820 and 4500 platforms, is not supported. The parameter is also removed from the ACLI.	SCZ8.0.0

The following features were deprecated prior to this release.

Feature	Description	First Deprecated

DES-CBC Ciphers	The Oracle Communications Session Border Controller deprecates the following ciphers, adhering to recent OpenSSL changes intended to eliminate weak ciphers:
	
	• All DES-CBC ciphers, including:
	  – TLS_DHE_RSA_WITH_DES_CBC_SHA
	  – TLS_RSA_EXPORT1024_WITH_DES_CBC_SHA
	
	The user should remove any prior Oracle Communications Session Border Controller version configuration that used these ciphers, and not configure a security profile with the expectation that these ciphers are available. Note also that TLS profiles using the **ALL** (default) value to the **cipher-list** parameter no longer use these ciphers.
	
	Note:
	Your version of the ACLI may still print these ciphers when you run the **cipher-list ?** command. Despite printing them in ACLI output, the system does not support them.
		SCZ740m1

FTP Support	The OCSBC's FTP Server has been deprecated. Only FTP client services are supported. For example, FTP client service for HDR/CDR push is supported. **Note:** Both the SFTP client and server are supported. References to FTP are present in the S-CZ8.0.0 documentation set because those terms are still used in the ACLI.	SCZ7.3.0
MGCP Signaling Support	MGCP Signaling has been deprecated.	SCZ7.1.2
SIP Monitor and Trace / WebGUI	The SIP Monitor & Trace and WebGUI features have been deprecated.	SCZ7.2.0

Feature	Description	First Deprecated
Source-based Routing	The source routing feature as configured by **system-config**, and then **source-routing** is not supported. Please review the HIP information in the Network Interface section in the System Configuration chapter of the ACLI Configuration guide for background on accessing SBC Administrative Applications over media Interfaces. 📝 **Note:** Despite deprecation, the parameter is still present in the **system-config**.	SCZ7.1.2
H.248	The Border Gateway and H.248 functionality have been deprecated.	SCZ7.1.2
HMR action on Call-ID	HMR operations on the Call-ID: header has been deprecated.	Prior to SCZ7.1.2
Session Replication for Recording	Session Replication for Recording has been deprecated. (Use SIPREC instead.)	Prior to SCZ7.1.2
MIKEY key management protocol	Multimedia Internet KEYing (MIKEY) for SRTP has been deprecated.	SCZ7.1.2
Lawful Intercept Features	The following LI features are deprecated: • VERINT support • P-DCS-LAES support • LI complex call flow support - SS8 & Verint • SDP and CCC IP address and Port number matching for SS8/ Verint variants	SCZ7.1.2
FIPS Certification	Federal Information Processing Standards (FIPS) Certification is not available in the Oracle Communications Session Border Controller. (Note that it is available in the Enterprise Session Border Controller.)	SCZ7.1.2
IWF	Interworking Features • DTMF IWF for H.323 • Media hairpinning involving H.323 and SIP	N/A

Behavioral Changes

This section documents the behavioral changes in this software release of which the user should be aware.

SObject Debugging

By default, the system now has the **enable-sobject-debugger** option enabled.

To improve serviceability, **enable-sobject-debugger** is enabled by default. This may have a negative effect on system performance. If this impact is unacceptable, then the user can disable this option.

Codec Entitlement

As of S-CZ8.0.0, the user can use the G729 codec without having to enable it by either entitlement or license key.

IPv6 Addressing on Wancom0

Beginning with this software version, you must configure all three components of an IPv6 address, including address, mask and gateway, in your system's boot parameters for wancom0 addressing. The system requires all three components for IPv6 Neighbor Discovery to work properly.

Enabling Admin Security

As of S-CZ8.0.0p1, the user enables the Admin Security feature from the **setup entitlements** menu.

Documentation Changes

This section lists and describes the changes made to the Oracle Communications Session Border Controller (OCSBC) documentation set for this version.

Virtual Network Function (VNF)

This version of the OCSBC supports deployment as a VNF. Documentation supporting this functionality is provided as follows:

- These *S-CZ8.0.0 Release Notes*
  - Specifications and Requirements Chapter
    - Supported Hypervisor List
    - Required VM Resources
    - VM-specific Distributions
    - VM-related Upgrade Detail
  - Known Issues and Caveats - Including VM-specific Issues
- *Installation and Platform Preparation Guide*
  - Introduction to Platform Preparation and Software Deployment — VM Platform Introduction
  - The OCSBC as a Virtual Machine
    - Hypervisor Configuration Recommendations
    - VM Configuration Overview
    - VM-Related VLAN Support
  - Virtual Machine Platforms — Hypervisor-specific Procedures for VM Deployment
  - Interface Considerations for VM Platforms
  - DPDK-Based OVS Installation — Example OVM Hypervisor Configuration
- *ACLI Configuration Guide*
  - Getting Started Chapter — VNF Overview

    –   System Configuration Chapter — VNF-related Core Configuration

    –   Realm Configuration Chapter — VNF-related Traffic Management Configuration

Header Manipulation Rules Documentation

The documentation on Header Manipulation Rules (HMR) for the OCSBC is moved from the *ACLI Configuration Guide* to the new *HMR Guide* beginning with release SCz8.0.0. This book is now maintained as a component of the OCSBC documentation set.

Entitlements Documentation

A section has been added to these Release Notes to consolidate the presentation of purchased feature types and the method you use to enable them.

Neighbor Release Patch Equivalency

Patch equivalency indicates which patch content in neighbor releases is included in this release. This assures you that in upgrading, defect fixes in neighbor stream releases are included in this release.

Neighbor Release Patch Equivalency for S-Cz8.0.0 GA

The patch baseline, the most recent patch build from which the GA build was created, is SCZ730m2p1.

Neighbor Release Patch Equivalency for S-Cz8.0.0p1

- S-Cz7.4.0m1p1
- S-CZ7.3.9p4

The patch baseline, the most recent patch build from which the GA build was created, is SCZ800 GA.

Supported SPL Engines

The following SPL engine versions are supported by this software:

- C2.0.0
- C2.0.1
- C2.0.2
- C2.0.9
- C2.1.0
- C2.2.0
- C2.2.1
- C2.3.2
- C3.0.0
- C3.0.1
- C3.0.2
- C3.0.3

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- C3.0.4
- C3.0.6
- C3.0.7
- C3.1.0
- C3.1.1
- C3.1.2
- C3.1.3
- C3.1.4
- C3.1.5
- C3.1.6
- C3.1.7
- C3.1.8
- C3.1.9

2

New Features in OCSBC Release S-CZ8.0.0

This chapter lists and describes features developed and released new for S-CZ8.0.0.

> **Note:**
>
> System session capacity and performance are subject to variations between various use cases (e.g. call models) and major software releases.

Acme Packet 6350

The Acme Packet 6350 is the newest and highest performing member of the Acme Packet platform family. Functionally equivalent to AP6300, the Acme Packet 6350 platform also provides three expansion slots in the familiar 3RU rack-mountable chassis. The AP6300 Network Interface Units (NIU), Transcoding Carrier Units (TCU), and Secure Services Modules version 3 (SSM3) are also supported by the AP6350.

Benefits and Features

- 8 Core CPU with 48 GB system memory
- High density transcoding
- Field proven architecture
- High capacity in a small footprint (3RU chassis)
- Leverages AP6300 NIUs, TCUs, and SSM3
- Functionally equivalent to Acme Packet 6300

System Features

The features listed in this section are related to the Oracle Communications Session Border Controller's internal systems functionality. These features are used for every day integration and maintenance within in your network. The location of each feature description across the documentation set is noted.

Gratuitous ARP Rate Limiting

You can configure the Oracle Communications Session Border Controller (OCSBC) to minimize the rate of IPv4 GARP and IPv6 Neighbor Discovery (ND) traffic it sends out during a failover. This can prevent address resolution errors, caused by slow switching infrastructure. If you do not configure this rate limiting the system sends these messages as fast as possible, based on system load.
This feature description is found in the ACLI Configuration Guide, High Availability chapter.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Redundancy Debug Information

Additional information about HA operation is now available via enhancements to the system's **show redundancy**, **reset redundancy** and **show queues** commands. The new information is especially useful for geo-redundant HA deployments. You should typically use these commands and data under the direction of Oracle support.

These change descriptions are found in the ACLI Configuration Guide, High Availability Configuration chapter. Related content can be found in the Monitoring and Troubleshooting guide.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

SNMP Trap on ACL Drops

You can configure the Oracle Communications Session Border Controller (OCSBC) to generate an SNMP trap upon the expiration of a configurable time period during which the ACL packet drop ratio has exceeded a configured drop threshold. This trap reports the total number of dropped packets in that time period. The feature is disabled by default, and requires SNMP traps and DoS enabled.
This feature description is found in the ACLI Configuration Guide, Security chapter. Related content can be found in the MIB guide.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Incremental QoS Updates (Provided to OCOM)

The Interim Quality of Service (QoS) Update setting supported on the Acme Packet 3900, the Acme Packet 4600, and the Acme Packet 6300 provides a more granular view of voice quality for troubleshooting by providing updates in 10 second increments. Without the Interim QoS Update setting selected, the Oracle Communications Session Border Controller (OCSBC) probe provides an average Mean Opinion Score (MOS) only at the end of the call. A troubleshooter cannot see what occurred in other parts of the call. For example, suppose your employee or agent complains of poor voice quality that occurred in the middle of the call, but the average MOS score at the end of the call is 4.40. The troubleshooter might determine that the quality is acceptable, without knowing that the score in the middle of the call is 2.50. The Interim QoS Update setting provides MOS scores every 10 seconds, and with more granular data to help troubleshooting efforts.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Factory Reset for the OCSBC

If you remove the Admin Security feature, some irrevocable changes and information remain on the system. You can return your platforms to their initial factory settings (zeroization) to remove all traces of the previous implementation. The factory reset process differs depending on whether you're performing it on an Acme Packet hardware platform or a Virtual platform.

See the Administrative Security Essentials Guide for a description and instructions on this feature.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Accounting Features

The features listed in this section are related to the Oracle Communications Session Border Controller's VoIP application functions. New functionality listed in this section may include accounting features. Locations of the features descriptions within the Oracle Communications Session Border Controller documentation set are noted.

NPLI in Interim CDRs

You can configure the Oracle Communications Session Border Controller (OCSBC) with a trigger to generate an INTERIM Call Detail Record (CDR) during applicable originating and terminating Voice over LTE and WiFi call flows when the INVITE egresses the system. This CDR contains Network Provided Location Information (NPLI) information received from the Policy and Charging Rules Function (PCRF) or other source that may be more accurate than network location information presented in the start CDR. When configured, the OCSBC adds this NPLI to RADIUS, DIAMETER, and/or local CSV CDRs.
This feature description is found in the ACLI Configuration Guide, IMS chapter.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Signaling Features

The features listed in this section are related to the Oracle Communications Session Border Controller's VoIP application functions. New functionality listed in this section may include protocol features, application-oriented network entity features, and application monitoring

features. Locations of the features descriptions within the Oracle Communications Session Border Controller documentation set are noted.

Fax Tone Detection

In some deployments, an originator sends inband fax messages through the Oracle Communications Session Border Controller (OCSBC) to terminating endpoints that do not support uncompressed codecs. Thus the terminating call leg must communicate FAXes either through out of band T.38 or in-band G.711 codecs. In some cases the terminating endpoint can determine that it is being sent a FAX and send a re-INVITE to request that it be sent T.38 FAX instead of inband FAX, thereby switching from an audio call to a FAX call. If the OCSBC does not receive this re-INVITE, it will send its own re-INVITE toward the terminating endpoint to establish the FAX session with a codec the endpoint can support.

This feature description is found in the ACLI Configuration Guide, IWF chapter.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

TSCF Features

The features listed in this section are related to the Tunneled Services Control Function feature group.

TSCF Logging Enhancement

You can configure the system to generate a NOTICE-level log message containing inner, outer and listening socket IP information, including address, port and realm for each TSM tunnel opened. You do this by enabling the **tscf-config**'s **log-ip-info** parameter.

This parameter is documented in the ACLI Reference Guide.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

3
Inherited Features

Feature descriptions found in this chapter are inherited (forward merged) from Oracle Communications Session Border Controller releases:

- S-CZ7.3.0M3
- S-CZ7.4.1

These features are not included in S-CZ7.4.0 GA docset.

S-CZ7.3.0 Maintenance Release Features

The following features appear in this major release documentation set for the first time.

RTP Timestamp Synchronization

The Oracle Communications Session Border Controller maintains the continuity of egress transcoded media streams during HA switchover by synchronizing the RTP timestamps between active and standby systems.

This feature description is found in the ACLI Configuration Guide, High Availability Nodes chapter.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

S-CZ7.4.1 Release Features

The following features appear in this major release documentation set for the first time.

CDR Push Capability

This feature provides the Oracle Communications Session Border Controller user with a mechanism to manage CDRs in a High Availability (HA) environment that helps prevent CDR loss during HA events. The user configures the function by setting the **cdr-out-redundancy** parameter to the **standby-push** value.

This feature description is found in the Accounting Guide, Configuring Accounting chapter. Additional feature information is found in the ACLI Reference Guide.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

Increase in Self Entitlement Capacity

The user may now set the capacity of the OCSR in dialog mode up to 512k concurrent sessions, depending on their entitlements.

> **Note:**
>
> This feature is available in the S-CZ8.0.0p1 release and later.

4
Interface Changes

This chapter summarizes ACLI, SNMP, HDR, Alarms, and RADIUS changes (where applicable) for S-CZ8.0.0. Additions, removals, and changes appearing in this chapter are since the previous major release of the Oracle Communications Session Border Controller.

ACLI Command Changes

This section summarizes the ACLI command changes that first appear in the Oracle Communications Session Border Controllerrelease S-CZ8.0.0

Command	Description
show acl summary	Enhanced to display ACL statistics for the current data collection window as well as the accumulative counters. "Current" refers to all data since the last time the user ran **show acl current** or **show acl summary**.
show acl current	New command parameter showing new data since the last time the user ran **show acl current** or **show acl summary**.
show redundancy <taskname>	Displays redundancy statistics for the specified task.
show redundancy <taskname> journals size	Displays journal size statistics for the specified redundancy task.
show redundancy <taskname> journals perf	Displays journal performance statistics for the specified redundancy task.
show redundancy <taskname> actions	Displays most recent redundancy actions for the specified task.
show redundancy sipd objects actions	Displays most recent redundancy actions for all sipd redundancy objects.
reset redundancy	Expands reset capability to reset new redundancy statistics.
show queues sipd [commands [by-id #]]	Displays a summary of queue command statistics for all sipd queues. The by-id argument allows the user to specify a single queue.
show memory sobjects	Displays the number of sobject classes currently consuming system memory. Use this command only for debugging purposes under the direction of Oracle support.
show platform heap-statistics	Adds classless processes to the output display when run with the **heap-statistics** argument. Use this command only for debugging purposes under the direction of Oracle support.

Command	Description
show datapath usdp eth-stats [slot <slot#> port <port #> [reset]	Displays all the ethernet statistics counters for all media ports or the specified slot/port. The "reset" argument resets all counters for the port, providing it is supported by PMD. Use this command only for debugging purposes under the direction of Oracle support.
management	This command is deprecated.
show interfaces	This command has two arguments added, including **ethernet** and **mapping**.
show interface-mapping	This command is deprecated. Equal functionality is provided using the **interface-mapping** branch's **show** command and the **show interfaces mapping** command.

There are no previously undocumented ACLI command changes that first appeared in a release prior to Oracle Communications Session Border ControllerS-CZ8.0.0, and are new to this major release.

ACLI Configuration Element Changes

This section summarizes the ACLI configuration element changes that first appear in release Oracle Communications Session Border ControllerS-CZ8.0.0

System Options

New Parameters	Description
system-config, and then **option system-heap-log-interval**	RTC option to set the interval the system uses to log memory information. The range is 0 (disabled) to 86400 seconds. The default is 300.
system-config, and then **option critical-memory-abort**	RTC option to trigger system reboot and core dump when the system issues its critical memory alarm. Values include enabled and disabled (default).

Redundancy Features

New Parameters	Description
redundancy-config, and then **garpMessages**	Specifies the number of GARP and IPv6 ND messages the system sends out within its interval window during an HA failover.
redundancy-config, and then **garpInterval**	Specifies the window within which the system limits the number of GARP and IPv6 ND messages during an HA failover.

Accounting Features (for VoLTE)

New Parameters	Description
account-config, and then **generate-interim** , and then **Egress-Invite**	Causes the system to generate an additional interim CDR when the system sends applicable VoLTE and Wifi calls' INVITEs out towards the called party.

Signaling Features

New Parameters	Description
media-manager-config, and then **codec-policy** , and then **tone-detection**	Enable tone detect
media-manager-config, and then **codec-policy** , and then **tone-detect-renegotiate-timer**	Renegotiate tone detect timer
media-manager-config, and then **codec-policy** , and then **reverse-fax-tone-detection-reinvite**	Force SBC to send ReInvite on other realm

Security Features

New Parameters	Description
media-manager-config, and then **acl-monitor-window**	The time window, after which the system resets its ACL drop counters, and generates a trap if trusted or untrusted ACLs have exceeded their configured drop threshold. This parameter is not real-time configurable. Reboot after setting this parameter.

TSCF Features

New Parameters	Description
tscf-config, and then **log-ip-info**	When enabled, causes the system to generate a NOTICE-level log message containing inner, outer and listening socket IP information, including address, port and realm for each tunnel opened.

IMS/VoLTE Features

There are no new configuration elements, nor new parameters for IMS-Volte features in this release.

Transcoding Features

There are no new configuration elements, nor new parameters for Transcoding features in this release.

Inherited Features

The following table summarizes the ACLI configuration element changes that first appeared in a release prior to Oracle Communications Session Border ControllerS-CZ8.0.0, but are new to this major release.

New Parameters	Description
account-config, and then **cdr-output-redundancy**, and then **standby-push**	Redundancy setting that helps prevent CDR loss during HA events.

Application SNMP/MIB Changes

This section summarizes the Application SNMP/MIB changes that appear in the Oracle Communications Session Border Controller version S-CZ8.0.0.

The following MIB object files are updated, as follows:

- ap-apps.mib-Objects and traps added to support SNMP Traps on ACL drops.
- ap-agentcapability.mib-Objects and traps added to support SNMP Traps on ACL drops.

The following MIB objects are included in the **ap-agentcapability.mib** to support this feature.

```
apAclDropMibCapabilities 1.3.6.1.4.1.9148.2.1.31
apAclDropCap 1.3.6.1.4.1.9148.2.1.31.1
description "Acme Packet Agent Capability for ACL drop monitoring MIB"
```

The following MIB objects are included in the **ap-apps.mib** to support this feature.

```
apAppsAclNotif 1.3.6.1.4.1.9148.3.16.2.2.4
apAppsAclNotifications 1.3.6.1.4.1.9148.3.16.2.2.4.0
apAclDropOverThresholdTrap 1.3.6.1.4.1.9148.3.16.2.2.4.0.1
description "The trap will be generated when acl drop ratio has exceeded the
configured threshold"

apAclDropOverThresholdClearTrap 1.3.6.1.4.1.9148.3.16.2.2.4.0.2
description "The trap will be generated when acl drop ratio has gone below the
configured threshold"
apAclNotificationGroups 1.3.6.1.4.1.9148.3.16.3.2.4
apAclDropNotificationsGroup 1.3.6.1.4.1.9148.3.16.3.2.4.1
description "Traps to monitor acl drops"

apAppsAclObjects 1.3.6.1.4.1.9148.3.16.4
apAclDropObjects 1.3.6.1.4.1.9148.3.16.4.1
apAclDropType 1.3.6.1.4.1.9148.3.16.4.1.1
description "ACL drop type"

apAclDropCount 1.3.6.1.4.1.9148.3.16.4.1.2
description "ACL drop count within monitor time window"

apAclDropRatio 1.3.6.1.4.1.9148.3.16.4.1.3
description "ACL drop ratio as permillage of current time window. Valid range
0-1000"
```

Alarms

This section summarizes the Alarm changes that appear in the Oracle Communications Session Border Controller version S-CZ8.0.0.

ACL Alarms

The system writes a DEBUG level log message in log.sipd when NPLI is inserted into the CDR for debug purpose, which appear similar to the below.

```
Mar 9 19:25:01.803
[SESSION] (3) GenerateStart: adding NPLI string
3GPP-GERAN;network-provided
Mar 9 19:25:45.525
[SESSION] (3) GenerateInterim: adding NPLI string
```

```
3GPP-GERAN;network-provided
Mar 9 19:26:45.267
[SESSION] (3) GenerateStop: adding NPLI string
3GPP-GERAN;network-provided
```

Critical Memory Alarm Option

Although the critical memory alarm itself is not new, the system now includes a **system-config** option, **critical-memory-abort**, that allows the user to configure the system to reboot and perform a core dump upon the alarm.

Accounting

This section summarizes the accounting changes that appear in the Oracle Communications Session Border Controller version S-CZ8.0.0.

The following accounting objects are added to support the inclusion on NPLI information in new INTERIM CDRs:

- For DIAMETER, the system now uses the **Access-Network-Information** AVP (code 1263) in the ACR (Rf interface), which is of type OctetString. Per 3GPP TS 32.299, this AVP indicates the SIP P-header, **P-Access-Network-Information**.

- For RADIUS, the system now uses the **Access-Network-Information** VSA in the CDR (code 248) in the Accounting-Request message. You may set the **Acc-Status-Type** to **Start**, **Interim**, or **Stop**.

- For Local CDRs, The CDR's NPLI object appears as the last object in Start, Interim, and Stop records as **Access Network Information** object, numbered for referenced as ACME 248.

HDR

This section summarizes the HDR changes that appear in the Oracle Communications Session Border Controller version S-CZ8.0.0.

sobject HDR Group

This release includes a new HDR ACLI-based group called **sobjects** that reports the ACLI's **show memory sobjects** command's data. Records appear in the format **<time stamp>,<class name>,<count>** where class-name is the name of each sobject, and count is the number of objects currently being used by the application.

The HDR group is documented in this release's *HDR Guide*. Configure and use this group only for debugging purposes under the direction of Oracle support.

5
Caveats and Known Issues

This chapter lists the caveats, known issues, limitations, and behavioral changes for this release. Oracle updates this Release Notes document to distribute issue status changes. Check the latest revisions of this document to stay informed about these issues.

Older Caveats Fixed in This Release

The following caveats have been fixed in SCZ8.0.0:

- QoS reporting is now supported for transcoded calls.

Caveats

This section presents Oracle Communications Session Border Controller issues that are inherent to this major version of the product.

Virtual Network Function (VNF) Caveats

The following are functional caveats applicable to VNF deployments of this release:

- The OVM server 3.4.2 does not support the virtual back-end required for para-virtualized (PV) networking. VIF emulated interfaces are supported but have lower performance. Consider using SR-IOV or PCI-passthru as an alternative if higher performance is required.

- Default levels for scalability and are set to ensure appropriate throttling based on platform capacity factors such as hypervisor type, number and role of CPU cores, available host memory and I/O bandwidth. In some cases, those defaults may not be appropriate and throttling may occur at lower or higher call rates than expected. Please contact Oracle Technical Support for details on how to override the default throttles, if required.

- To support HA failover, MAC anti-spoofing must be disabled for media interfaces on the host hypervisor/vSwitch/SR-IOV_PF.

- Lawful Intercept is supported for the X123. PCOM support for LI is not available on virtual platforms.

- There are occasional VM shutdowns experienced when running the VNF on KVM (OL7.3) with PCI passthrough interfaces. These shutdowns do not include any indication that the VNF is rebooting, and do not occur based on any specific VNF behavior or operations.

  Oracle believes the hypervisor is triggering these shutdowns and recommends upgrading to OL7.4 if the user experiences them.

Interface Utilization Support

The Interface Utilization: Graceful Call Control, Monitoring, and Fault Management feature is unsupported for this release.

Transcoding - general

Only SIP signaling is supported with transcoding.

Codec policies can only be used with realms associated with SIP signaling.

SIPREC may not be performed on a transcoded call.

T.38 Fax Transcoding

T.38 Fax transcoding available for G711 only at 10ms, 20ms, 30ms ptimes.

Pooled Transcoding for Fax is unsupported.

Pooled Transcoding

The following media-related features are not supported in pooled transcoding scenarios:

- Lawful intercept
- 2833 IWF
- Fax scenarios
- RTCP generation for transcoded calls
- T.140-Baudot Relay
- OPUS/SILK codecs
- SRTP and Transcoding on the same call
- Asymmetric DPT in SRVCC call flows
- Media hairpinning
- QoS reporting for transcoded calls
- Multiple SDP answers to a single offer
- PRACK Interworking
- Asymmetric Preconditions

DTMF Interworking

RFC 2833 interworking with H.323 is unsupported.

SIP-KPML to RFC2833 conversion is not supported for transcoded calls.

H.323 Signaling Support

If H.323 and SIP traffic are run in system, each protocol (SIP, H.323) should be configured in its own separate realm.

Media Hairpinning

Media hairpinning is not supported for hair-pin/spiral call flows involving both H.323 and SIP protocols.

OCOM Support

When the user enables the 10 second QoS interim update feature for OCOM support, packet data includes the wrong source IP address for the incoming side of a call flow.

Note that the call and QoS monitoring are successful regardless of this issue. For monitoring/debugging purposes, the user can find the source IP in the SIP messages (INVITE/200OK).

Fragmented Ping Support

The Oracle Communications Session Border Controller does not respond to inbound fragmented ping packets.

Physical Interface RTC Support

After changing any Physical Interface configuration, a system reboot is required.

SRTP Caveats

The ARIA cipher is not supported by virtual machine deployments.

Linksys SRTP is not supported.

The packet-trace command

- VNF deployments do not support the **packet-trace remote** command.
- Output from the **packet-trace local** command on hardware platforms running this software version may display invalid MAC addresses for signaling packets.
- The **packet-trace remote** command does not work with IPv6.

Trace Tools

You may only use one of these trace tools at a time:

- **packet-trace** command
- The **communications-monitor** as an embedded probe with the Oracle Communications Operations Monitor

RTCP Generation

Video flows are not supported in realms where RTCP generation is enabled.

SCTP

SCTP Multihoming does not support dynamic and static ACLs configured in a realm.

SCTP must be configured to use different ports than configured TCP ports for a given interface.

High Availability

High Availability (HA) redundancy is unsuccessful when you create the first SIP interface, or the first time you configure the Session Recording Server on theOracle Communications Session Border Controller (OCSBC). Oracle recommends that you perform the following work around during a maintenance window.

1. Create the SIP interface or Session Recording Server on the primary OCSBC, and save and activate the configuration.

2. Reboot both the Primary and the Secondary.

Known Issues

This table lists OCSBC known issues in version S-Cz8.0.0 . The user can reference defects by Service Request number and can identify the issue, any workaround, when the issue was found, and when it was fixed using this table. Issue descriptions not carried forward from previous versions' Release Notes and documented herein are not relevant to this release. The user can review delivery information, including defect fixes via this release's Build Notes.

Unsupported Features

ID	Description	Found In	Fixed In
N/A	This version's enhancement to SMP-Aware Task Load Limiting, which adds a second parameter to the sip-config's load-limit option, is currently not supported.	SCZ740	TBD

General Configuration

ID	Description	Found In	Fixed In
26321175	In this version of the OCSBC, the **realm-config** element's **access-control-trust-level** parameter is not real-time configurable. Workaround: Make changes to this parameter within a maintenance window.	SCZ740	TBD
26527201	To operate this version of the OCSR using a 4-core configuration, Oracle recommends that you configure at least one DoS core.	SCZ800p1	TBD
26608584	The npli-upon-register feature may cause performance degredation.	SCZ800p1	TBD
26453119	Oracle recommends the user deploy VNFs over KVM using OVS. Linux bridges are not supported.	SCZ800p1	TBD

System Tools

ID	Description	Found In	Fixed In
26323802	The 10s QoS interim feature includes the wrong source IP address as the incoming side of a call flow. Note that the call and QoS monitoring are successful. For monitoring/debugging purposes, the user can find the source IP in the SIP messages (INVITE/200OK).	SCZ800p1	TBD
26316821	When configured with the 10 second QoS update mechanism for OCOM, the OCSBC presents the same codec on both sides of a transcoding call in the monitoring packets. Note that the user can determine the correct codecs from the SDP within the SIP Invite and 200 OK.	SCZ800p1	TBD

Command Output

ID	Description	Found In	Fixed In
26497348	When operating in HA mode, the OCSBC may display extraneous "Contact ID" output from the **show sipd endpoint-ip** command. The user can safely ignore this output.	SCZ800	TBD
26258705	The **show sipd srvcc** command does not display the correct number of failed aSRVCC calls.	SCZ800	TBD
24574252	The **show interfaces brief** command incorrectly shows **pri-util-addr** information in its output.	SCZ740	TBD
26790731	Running commands with very long output, such as the "show support-info" command, over an OVM virtual console may cause the system to reboot. Workaround: The user must only run the "show support-info" command over SSH.	SCZ800p1	TBD

SIP Signaling

ID	Description	Found In	Fixed In
26598075	The OCSBC sends a 200OK with IPv4 media address for call flows with offerless INVITES and the OCSBC configured with add-sdp-invite=invite and ALTC configured for IPv6 on the egress.	SCZ800	TBD
26559988	In call flows that include dual ALTC INVITEs from the callee, and subsequent Re-INVITEs that offer an ALTC with IPv6 video, the OCSBC may not include the m lines in the SDP presented to the endstations during the Re-INVITE sequence. This results in the call continuing to support audio, but the video failing.	SCZ800	TBD
26313330	In some early media call flows, the OCSBC may not present the correct address for RTP causing the call to fail.	SCZ800	SCZ800p2
26757626	In multiple early dialog scenarios where the PEM header is in the INVITE and the 200OK received from the core does not include SDP, the OCSBC does not anchor media properly.	SCZ800	TBD

Physical Interface

ID	Description	Found In	Fixed In
26281599	The system feature provided by the **phy-interfaces**'s **overload-protection** parameter and **overload-alarm-threshold** sub-element is not functional. Specifically, enabling the protection and setting the thresholds does not result in trap and trap-clear events based on the interface's traffic load. The applicable ap-smgmt.mib SNMP objects include: • apSysMgmtPhyUtilThresholdTrap • apSysMgmtPhyUtilThresholdClearTrap	SCZ720	S-CZ8.2.0

Interworking

ID	Description	Found In	Fixed In
27031344	When configured to perform SRTP-RTP interworking, the user may find that the OCSBC is forwarding SRTP information in the SDP body of packets on the core side, causing the calls to fail. Workaround: The user must add an appropriately configured media-sec-policy on the RTP side of the call flow. This policy is in addition to the policy on the SRTP side of the call flow.	SCZ800p1	TBD

SCTP

ID	Description	Found In	Fixed In
26121961	When running over the Acme Packet 6350, and handling fragmented IPv6 SIP traffic over SCTP, the OCSBC may crash.	SCZ800	TBD

IMS-AKA DDoS

ID	Description	Found In	Fixed In
24790920	When a sip-interface is configured with an ims-aka-profile entry, you must set the **ims_aka** option in the IPSec security-profile.	SCZ740	TBD
25144010	When an OCSBC operating on an Acme Packet 6300 fails over, the secondary can successfully add new ACL entries, but it also retains old ACL entries that it should have deleted.	SCZ740p1	SCZ800p1

IPSec

ID	Description	Found In	Fixed In
26669090	The OCSBC's dead peer detection does not work with IPv4.	SCZ800	TBD

OCSBC Running as an SLB Cluster Member

ID	Description	Found In	Fixed In
N/A	Rebalancing is unavailable on the OCSLB when running an Acme Packet 6300 as a cluster member. Set the SLB's **cluster-config**, and then **auto-rebalance** parameter to **disabled** to use an Acme Packet 6300 as a cluster member from that SLB.	SCZ730	TBD
26981799	When the OCSBC receives a re-registration for an endpoint that has an active call, the number of registered endpoints reported by the OCSLB may be different from that reported by the OCSBC.	SCZ800p1	TBD

Accounting

ID	Description	Found In	Fixed In
21805139	RADIUS Stop records for IWF calls may display inaccurate values.	SCZ730	TBD

IPv6

ID	Description	Found In	Fixed In
24809688	Media interfaces configured for IPv6 do not support multiple VLANs.	SCZ730	TBD
29931732	The embedded communications monitor probe does not send IPv6 traffic to the Oracle Communications Operations Monitor's mediation engine.	SCZ800	TBD

H.323

ID	Description	Found In	Fixed In
	SIP-H323 hairpin calls with DTMF tone indication interworking is not supported.	SCZ720	TBD
	The OCSBC crashes when the user has configured an H323 stack supporting SIP-H323-SIP calls with its **max-calls** parameter set to a value that is less than its **q931-max-calls** parameter. Workaround: For applicable environments, configure the H323 stack's **max-calls** parameter to a value that is greater than its **q931-max-calls** parameter.	SCZ740	TBD
N/A	HA Redundancy is not supported for H.323 calls.	N/A	N/A

OCSR

ID	Description	Found In	Fixed In
23756306	When the OCSR is configured with a operation-mode of session, it is failing to correctly clear sessions.	SCz7.2.0	TBD

MSRP

ID	Description	Found In	Fixed In
25101421	Chunked file transfers fail when configured for MSRP and running on the Acme Packet 6300.	SCZ740	CZ810m1
28820258	On PNF platforms, when running TLS Chat on VMware-PV 4core (SSFD)+ 16GB, TLS Chat sessions are gradually decreasing. When looking in Wireshark at EXFO, EXFO forwards a wrong TLS MSRP Chat payload to EXFO UAS. TCP Chat does not have this error.	E-CZ800	TBD

TSCF

ID	Description	Found In	Fixed In
24313811	When running TSM, the OCSBC crashes after setting up approximately 2500 TLS tunnels/calls.	SCZ730M2	SCZ800p1
25044813	The OCSBC is unable to synchronize all tunnels across an HA pair when the number of idle TSM tunnels exceeds 120k. The user can verify current tunnel count with the **show tscf address-pool all** command.	SCZ740	SCZ800p1

High Availability

ID	Description	Found In	Fixed In
23253731	After an HA switchover, the new standby OCSBC retains some IMS-AKA subscriber TCP sockets. The user can clear these sockets by rebooting the OCSBC.	SCZ730M2	TBD
22322673	When running in an HA configuration, the secondary OCSBC may go out of service (OOS) during upgrades, failovers, and other HA processes while transitioning from its "Becoming Standby" state. This event has been observed in approximately 25% of these conditions. The user can verify this issue via log.berpd, which would indicate that the media has failed to synchronize. Workaround: Reboot the secondary until it successfully reaches its "Standby" state.	SCZ7.3.0P1	TBD
26183767	When operating in HA mode and handling large traffic loads, the active OCSBC crashes when the user restores large configurations that are different from the configuration the active is currently running. The systems subsequently goes out of service.	SCZ800	SCZ800p1

Pooled Transcoding

ID	Description	Found In	Fixed In
28062411	Calls that require SIP/PRACK interworking as invoked by the 100rel-interworking option on a SIP interface do not work in pooled transcoding architectures.	SCZ740	TBD
28071326	Calls that require LMSD interworking as invoked by the lmsd-interworking option on a SIP interface do not work in pooled transcoding architectures. During call establishment, when sending the 200 OK back to the original caller, the cached SDP is not included.	SCZ740	CZ810m1